



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
19.11.2008 Bulletin 2008/47

(51) Int Cl.:
G04C 10/00 (2006.01)

(43) Date of publication A2:
12.11.2008 Bulletin 2008/46

(21) Application number: **08007002.2**

(22) Date of filing: **08.04.2008**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR
Designated Extension States:
AL BA MK RS

(72) Inventor: **Nakamiya, Shinji**
Suwa-shi
Nagano 392-8502 (JP)

(74) Representative: **HOFFMANN EITLE**
Patent- und Rechtsanwälte
Arabellastrasse 4
81925 München (DE)

(30) Priority: **10.04.2007 JP 2007102862**

(71) Applicant: **Seiko Epson Corporation**
Shinjuku-ku
Tokyo 163-0811 (JP)

(54) **Motor drive control circuit, semiconductor device, electronic timepiece, and electronic timepiece with a power generating device**

(57) A motor drive control circuit that operates using a primary power supply and controls driving a motor has a drive circuit that drives the motor, a power supply circuit that is disposed between the primary power supply and the drive circuit, and uses electrical energy supplied from the primary power supply to supply a drive voltage to the drive circuit, and a power supply control circuit that con-

trols operation of the power supply circuit. The power supply control circuit monitors the drive voltage, stops the power supply circuit and stops supplying the drive voltage when the drive voltage is greater than or equal to a prescribed constant voltage, and activates the power supply circuit and supplies the drive voltage when the drive voltage is less than the prescribed constant voltage.

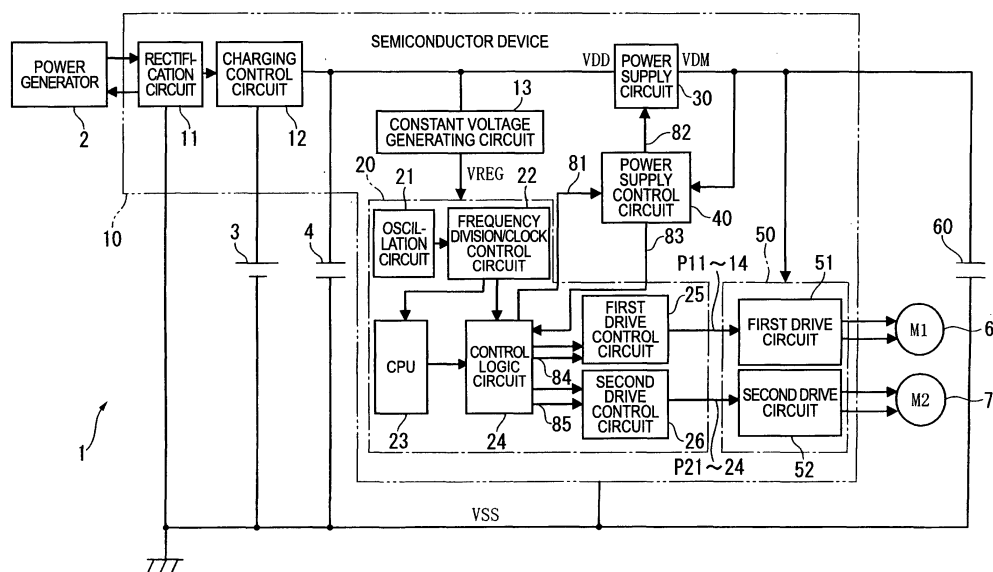


FIG. 1



EUROPEAN SEARCH REPORT

Application Number
EP 08 00 7002

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 1 098 235 A (SEIKO EPSON CORP [JP]) 9 May 2001 (2001-05-09)	1,5-17	INV. G04C10/00
Y	* paragraphs [0009] - [0028]; figures 1,8 * * paragraphs [0064] - [0069] *	4	
X	US 5 881 028 A (HIGUCHI HARUHIKO [JP] ET AL) 9 March 1999 (1999-03-09) * columns 3-4; figure 1 *	1-3, 10-17	
Y	EP 0 510 730 A (SEIKO EPSON CORP [JP]) 28 October 1992 (1992-10-28) * column 4, lines 26-38; figure 1 * * column 8, line 26 - column 9, line 30 *	4	
A	EP 1 055 981 A (SEIKO EPSON CORP [JP]) 29 November 2000 (2000-11-29) * paragraphs [0071] - [0075]; figure 2 *	1-17	
A	GB 2 406 450 A (MURATA MANUFACTURING CO [JP]) 30 March 2005 (2005-03-30) * abstract; figure 8 *	1-17	
A	US 6 211 657 B1 (GOLUSZEK DANIEL [US]) 3 April 2001 (2001-04-03) * abstract; figure 1 *	1-17	TECHNICAL FIELDS SEARCHED (IPC) G04C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 13 October 2008	Examiner Mérimeche, Habib
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

5
EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 08 00 7002

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

13-10-2008

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1098235	A	09-05-2001	CN 1305129 A	25-07-2001
			DE 60036591 T2	26-06-2008
			HK 1033983 A1	27-06-2008
			JP 3596383 B2	02-12-2004
			JP 2001133565 A	18-05-2001
			US 6522603 B1	18-02-2003

US 5881028	A	09-03-1999	DE 69733181 D1	09-06-2005
			DE 69733181 T2	16-02-2006
			EP 0836263 A1	15-04-1998
			WO 9734355 A1	18-09-1997
			JP 3718725 B2	24-11-2005

EP 0510730	A	28-10-1992	NONE	

EP 1055981	A	29-11-2000	CN 1288535 A	21-03-2001
			WO 0029913 A1	25-05-2000
			US 6584043 B1	24-06-2003

GB 2406450	A	30-03-2005	CN 1604444 A	06-04-2005
			JP 4107209 B2	25-06-2008
			JP 2005110369 A	21-04-2005
			US 2007164719 A1	19-07-2007
			US 2005067363 A1	31-03-2005

US 6211657	B1	03-04-2001	NONE	
